

# Key to the Trees of Iowa

## Definitions of special terms for identification

simple leaf = leaves have one blade

compound leaf = leaves have several individual leaflets

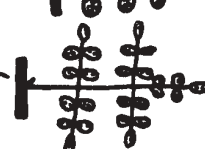
palmately compound -



pinnately compound -



doubly pinnately compound -



opposite leaves =



alternate leaves =



buds

leaflets

leaf margin types =

smooth



lobed



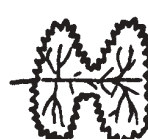
toothed



doubly toothed



lobed and toothed



leaf petioles =



vein crotches =

sharp

rounded

lobe sinuses =

or

samaras = any kind of small winged seed

pith =



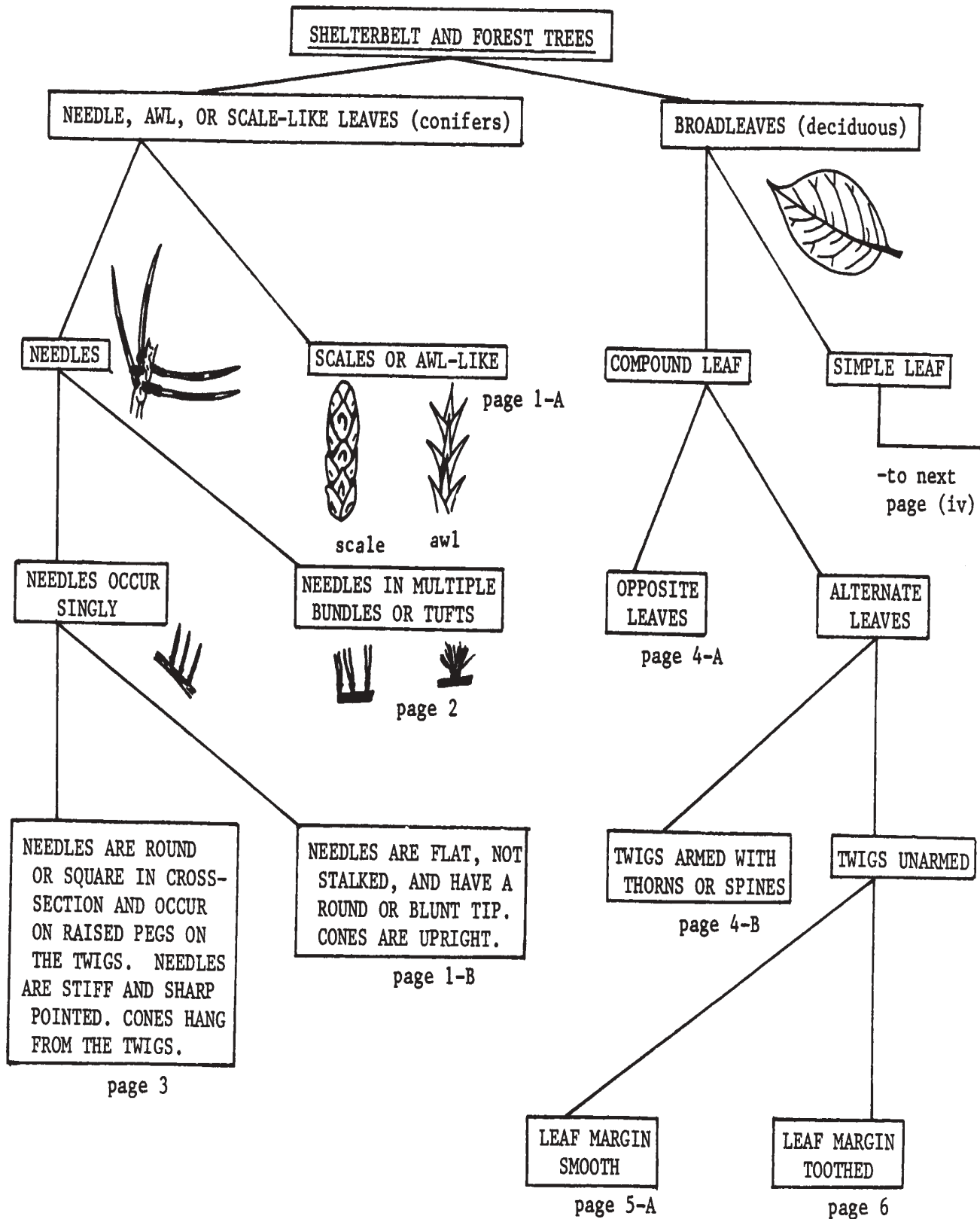
twig cross-section

single samaras



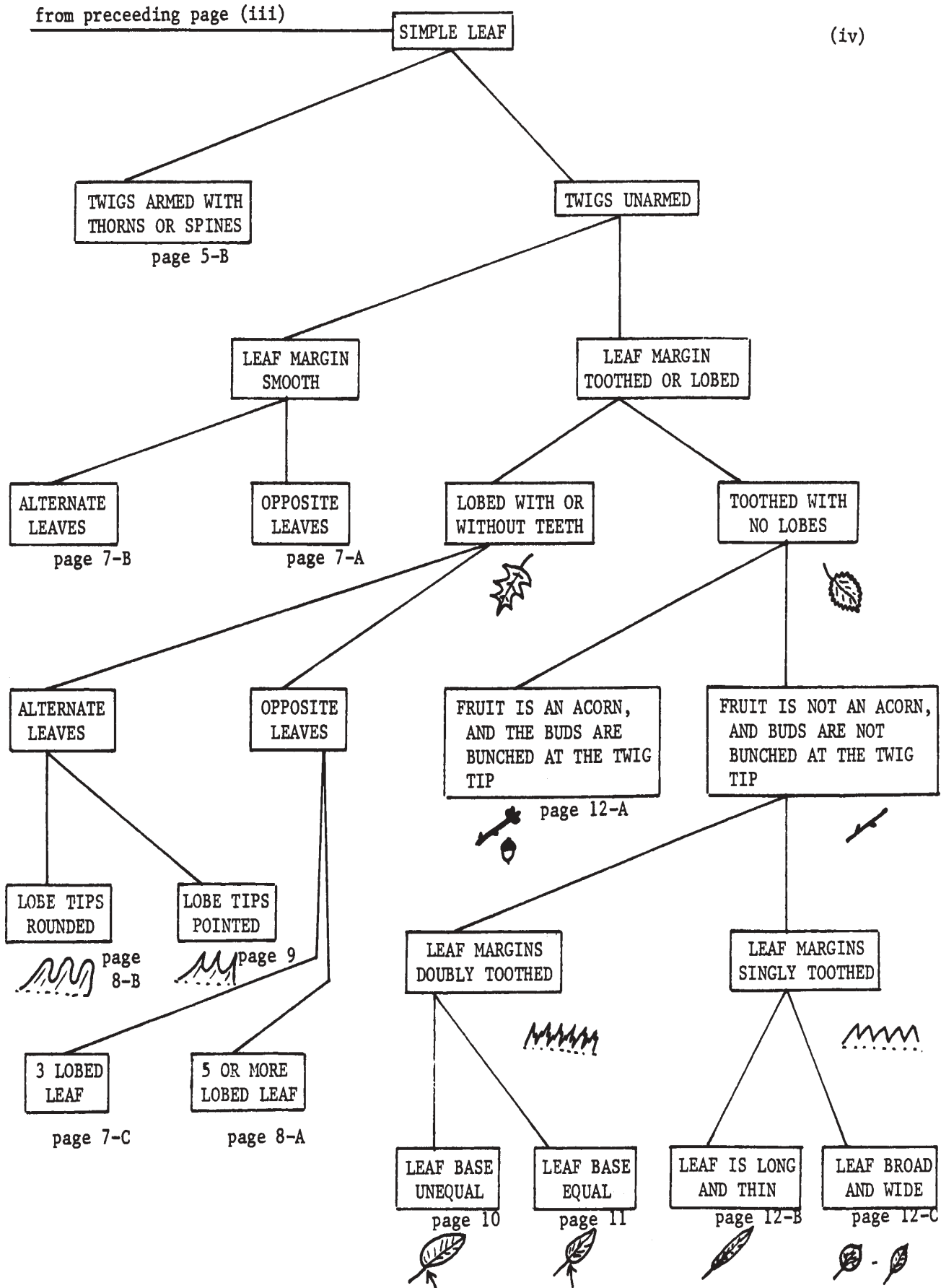
double samaras

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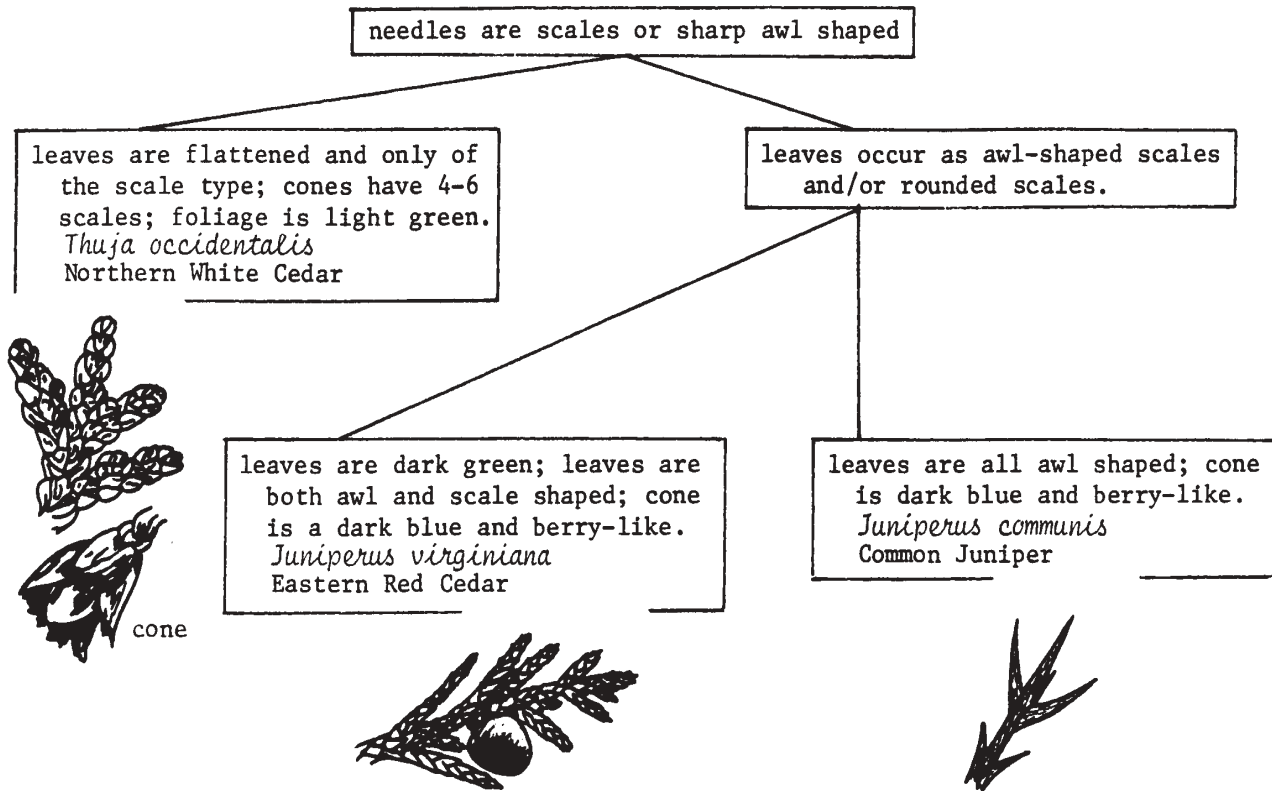


from preceeding page (iii)

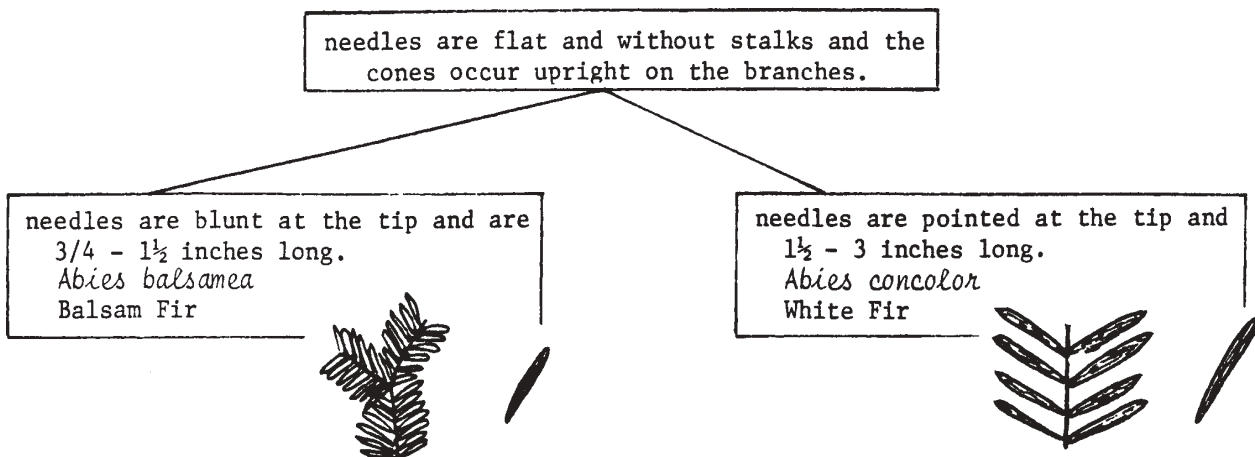
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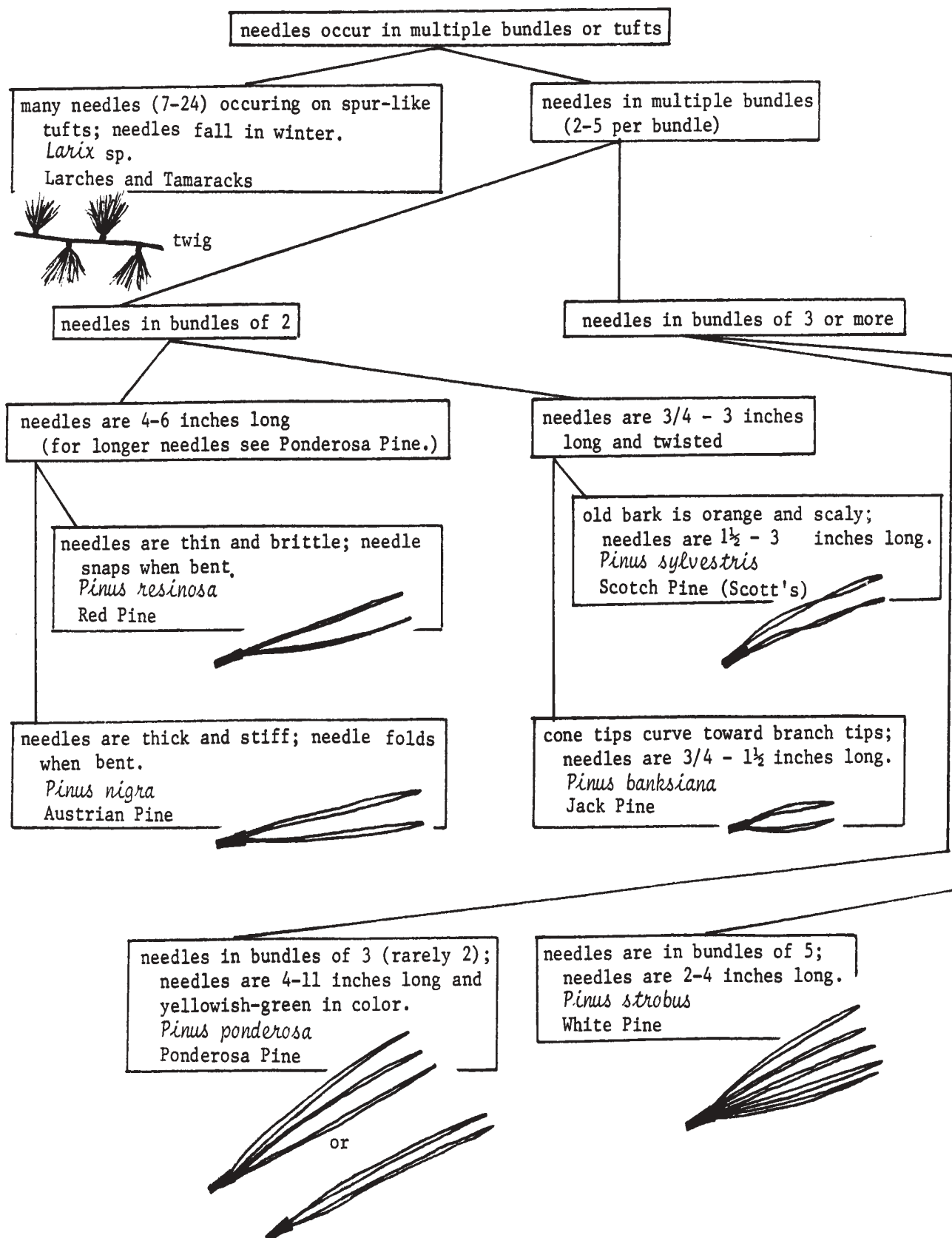


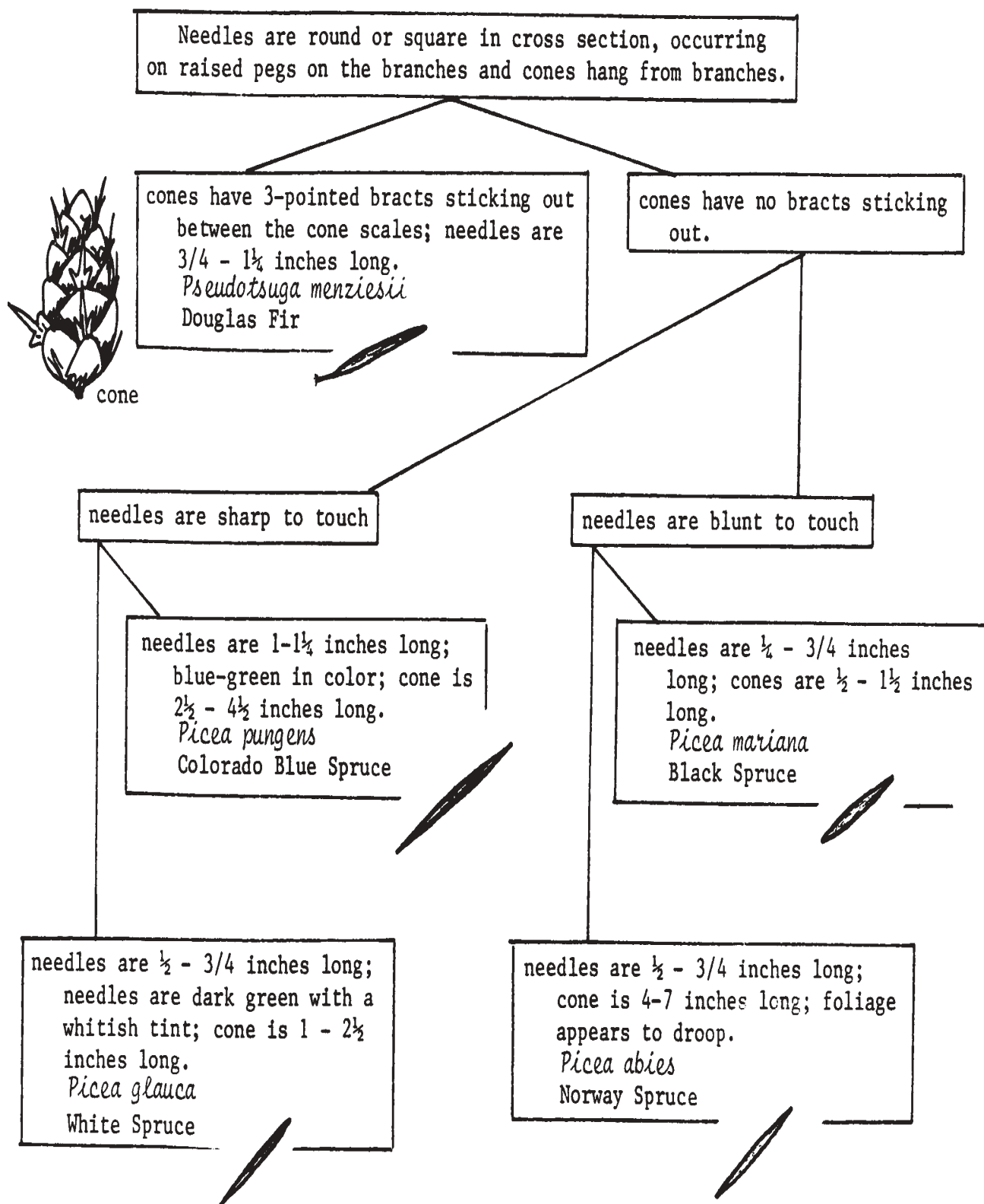
PART A

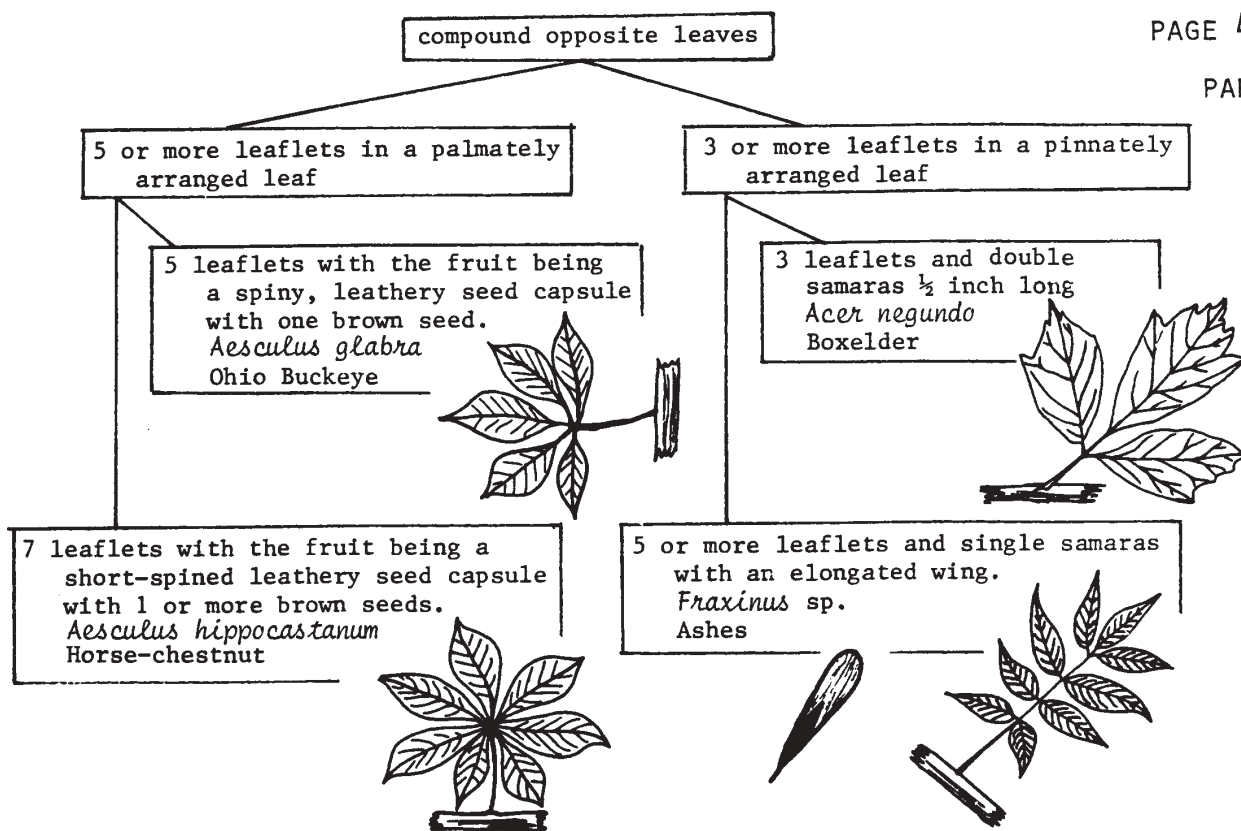


PART B

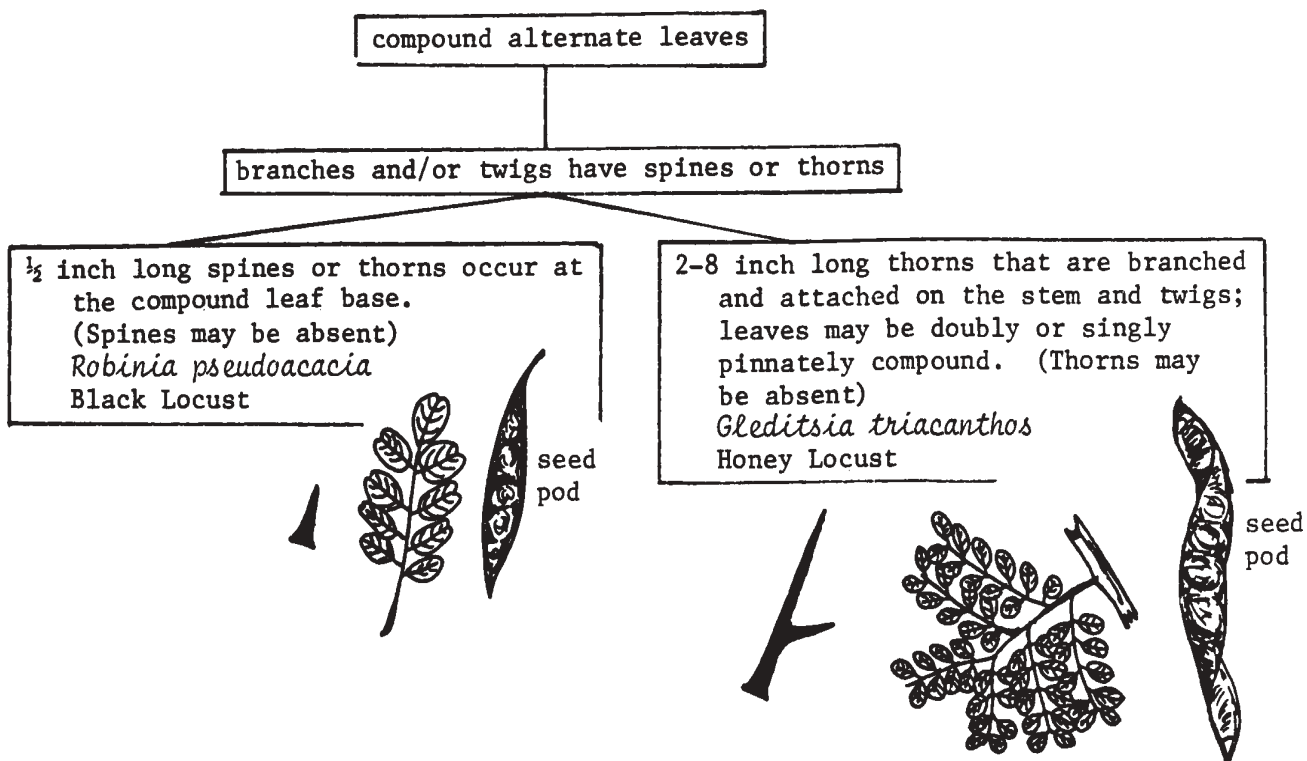








## PART B



## compound alternate leaves

leaflet margins are smooth for almost the entire length

leaves are doubly pinnately compound with 40 or more leaflets; leaf is 1-3 feet long.  
*Gymnocladus dioica*  
 Kentucky Coffee Tree

seed  
pod



leaves are singly pinnately compound with 13 to 39 leaflets; the leaflet margin is smooth except for 1-2 gland teeth at the base.  
*Ailanthus altissima*  
 Tree of Heaven

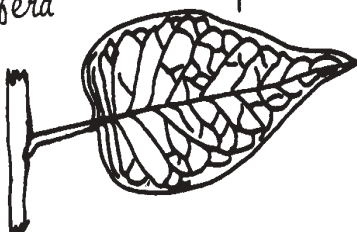


## simple leaves

branches and or twigs have spines or thorns that are sharply pointed

leaf margin is smooth

Leaf is 3-5 inches long with a long pointed tip; thorns are straight and  $\frac{1}{2}$  inch long.  
*Maclura pomifera*  
 Osage Orange



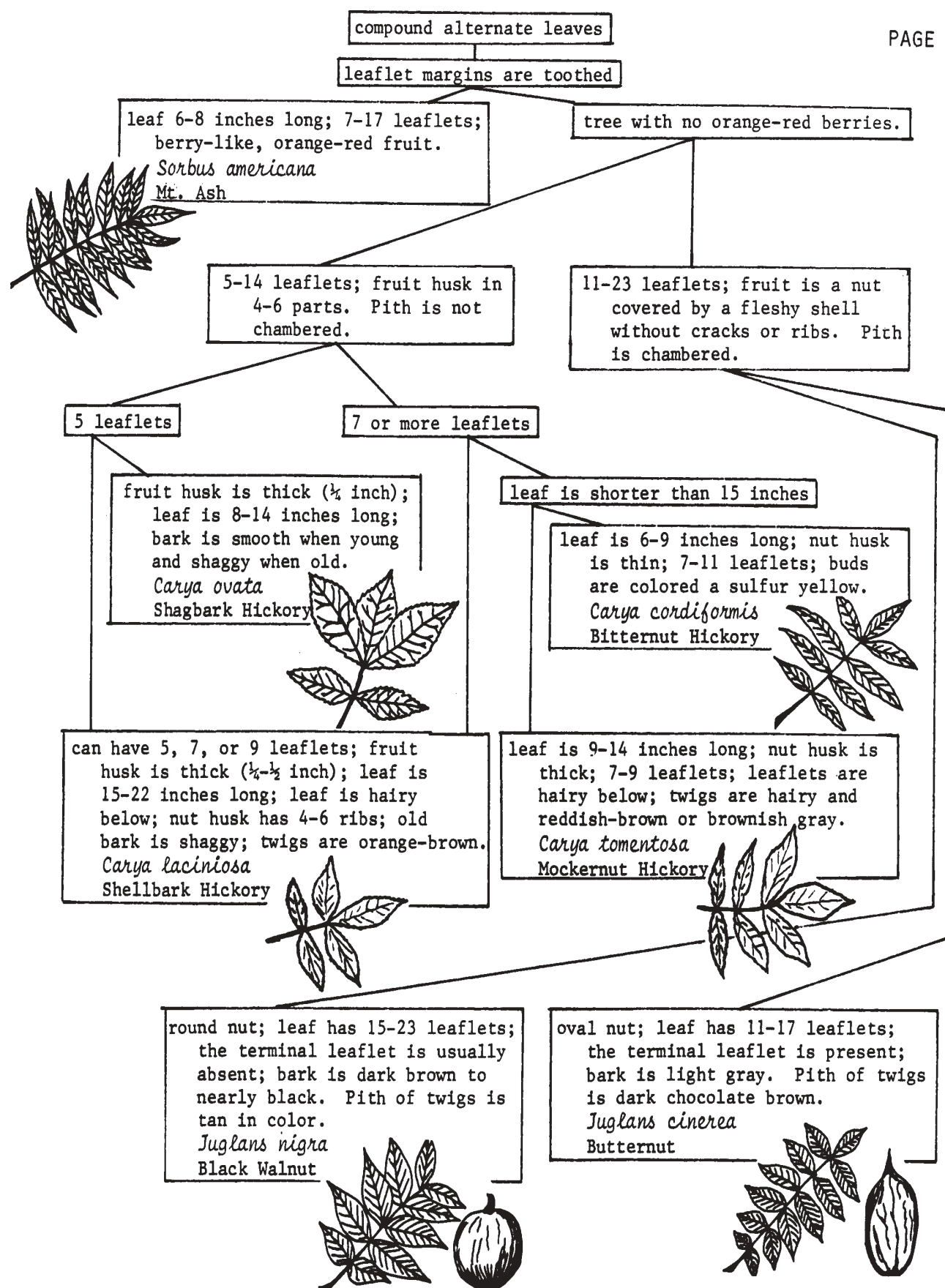
leaf margin is coarsely doubly toothed; stiff, sharp unbranched thorns.  
*Crataegus* sp.  
 Hawthorns



long spines or thorns; leaf is long and narrow; leaf is silvery colored and scurfy or scaley.  
*Elaeagnus angustifolia*  
 Russian Olive







simple opposite leaves

PAGE 7

smooth leaf margins

PART A

leaves are 3-6 inches long; veins run parallel to the leaf margin; midvein contains fine white strands of fibers when leaf is pulled apart.

*Cornus* sp.  
Dogwood



leaves are 8-12 inches long; leaf is heart shaped; fruit is long pod 8-20 inches long.

*Catalpa speciosa*  
Catalpa



PART B

simple alternate leaves

smooth leaf margins

heart shaped leaf; tip is pointed; fruit is a legume seed pod 2-3½ inches long and thin.

*Cercis occidentalis*  
Redbud



seed  
pod

fruit is an acorn; buds are bunched at the end of the twigs; leaves are oval and 4-6 inches long.

*Quercus imbricaria*  
Shingle Oak



PART C

simple opposite leaves

leaves have 3 main lobes

lobe sinuses are sharp angled; lobe margins are toothed; samara is V-shaped.

*Acer rubrum*  
Red Maple



lobe sinuses are rounded; bark is blackish; samaras are U-shaped.

*Acer nigrum*  
Black Maple



simple opposite leaves

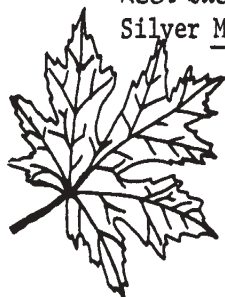
PAGE 8

PART A

leaves have 5 or more lobes (if the two basal lobes are small, check the 3-lobed key on page 7-C)

lobes are coarsely toothed; samaras are V-shaped; sinuses are sharp angled; 5 deep lobes.

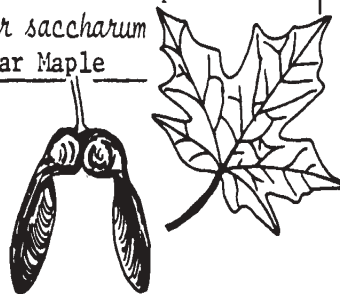
*Acer saccharinum*  
Silver Maple



lobe margins are smooth and entire.

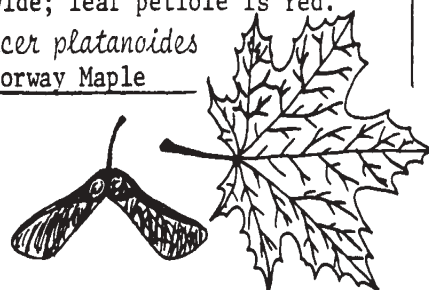
5 lobes with rounded sinuses; samara is U-shaped.

*Acer saccharum*  
Sugar Maple



5-7 lobes with rounded sinuses; samara blades split apart very wide; leaf petiole is red.

*Acer platanoides*  
Norway Maple



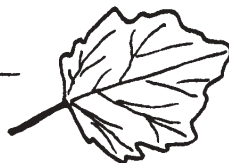
PART B

simple alternate leaves

lobe tips are rounded

leaf undersides and twigs are white and hairy; 3-5 lobes; leaves dark green above.

*Populus alba*  
White Poplar



leaf undersides are green, not white and hairy; fruit is an acorn.

acorn is oblong; lobes are irregular.

*Quercus bicolor*  
Swamp White Oak



acorn is generally spherical; 5-9 lobes.

7-9 lobes; acorn has smooth cap.

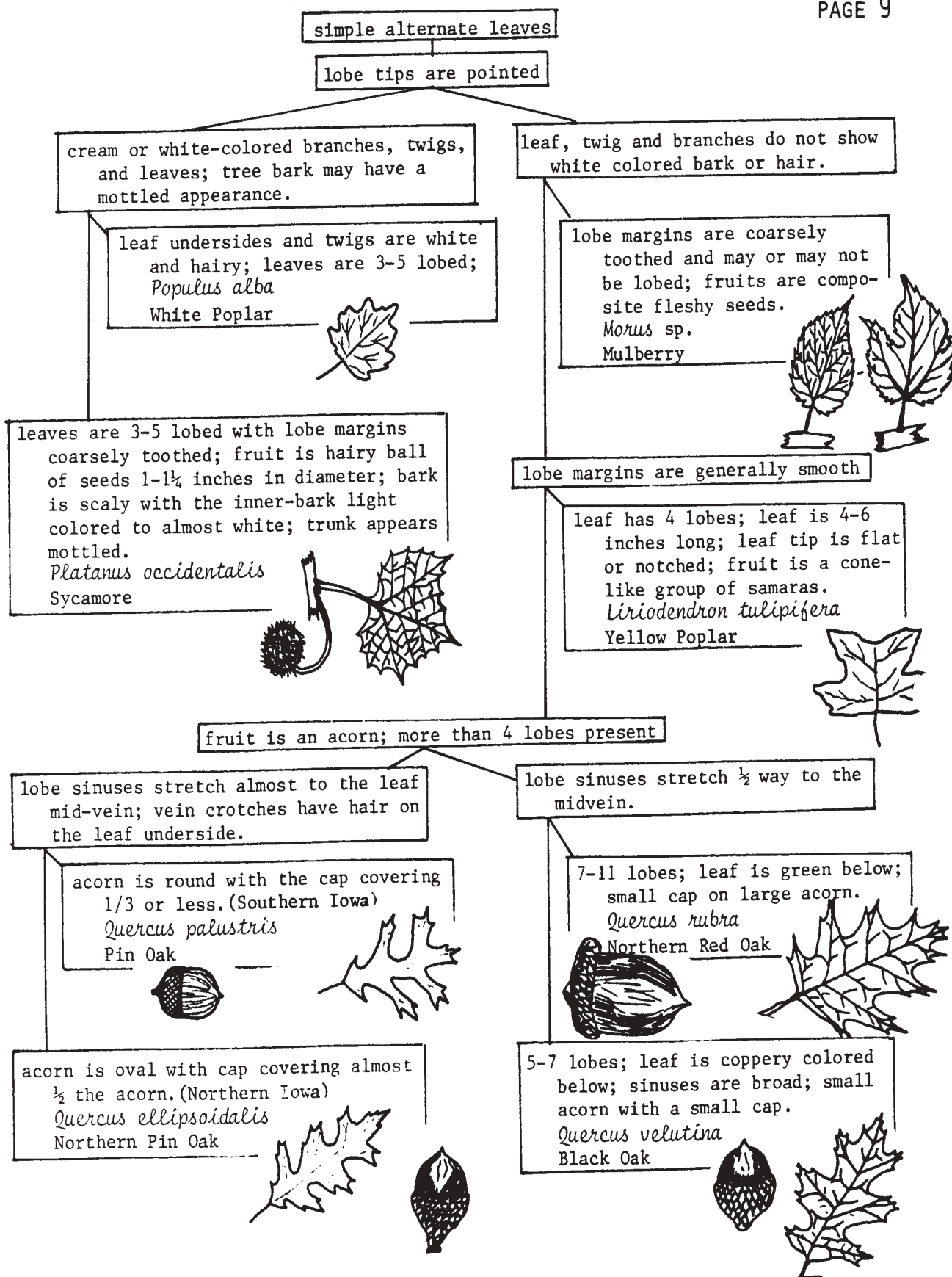
*Quercus alba*  
White Oak

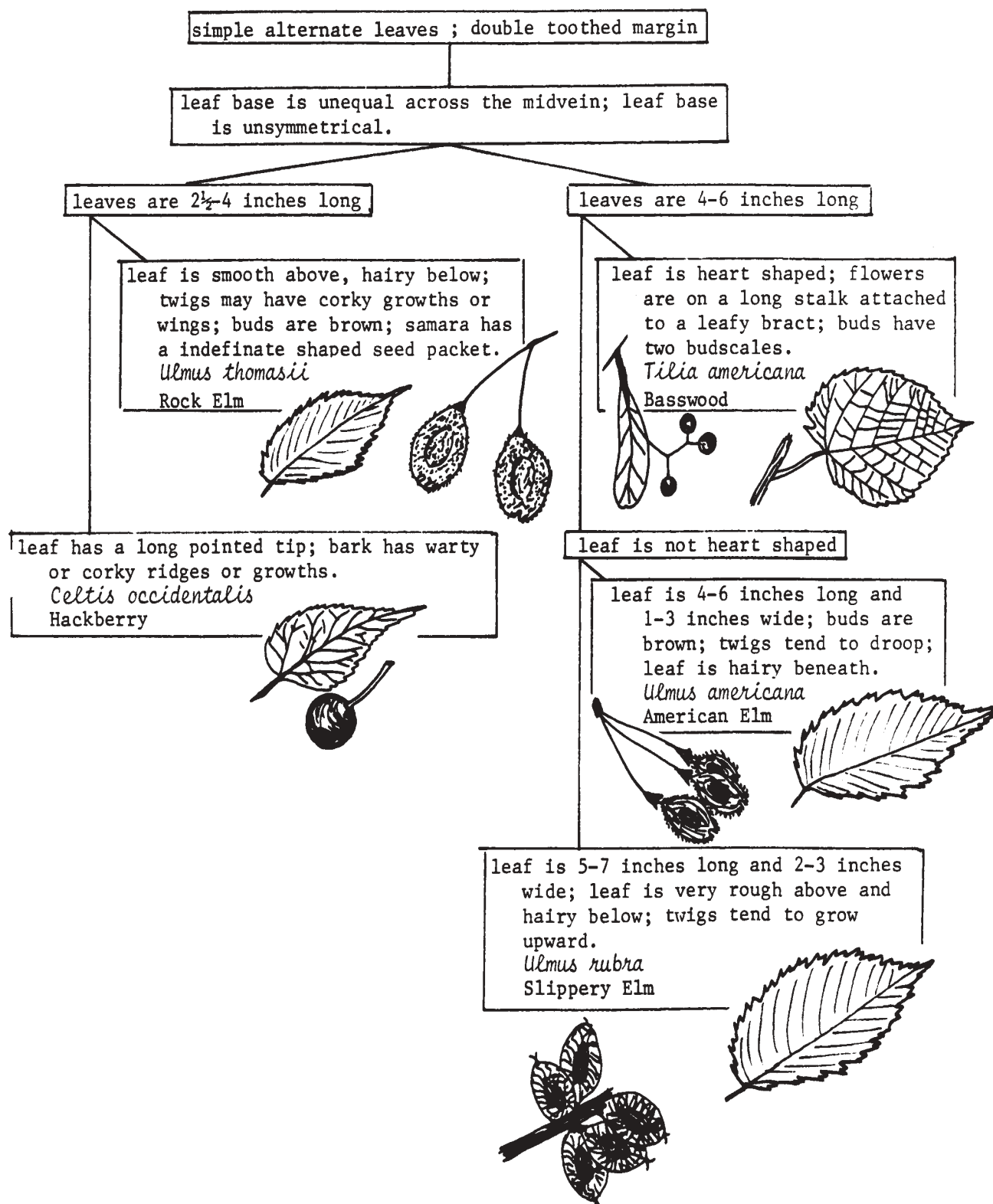


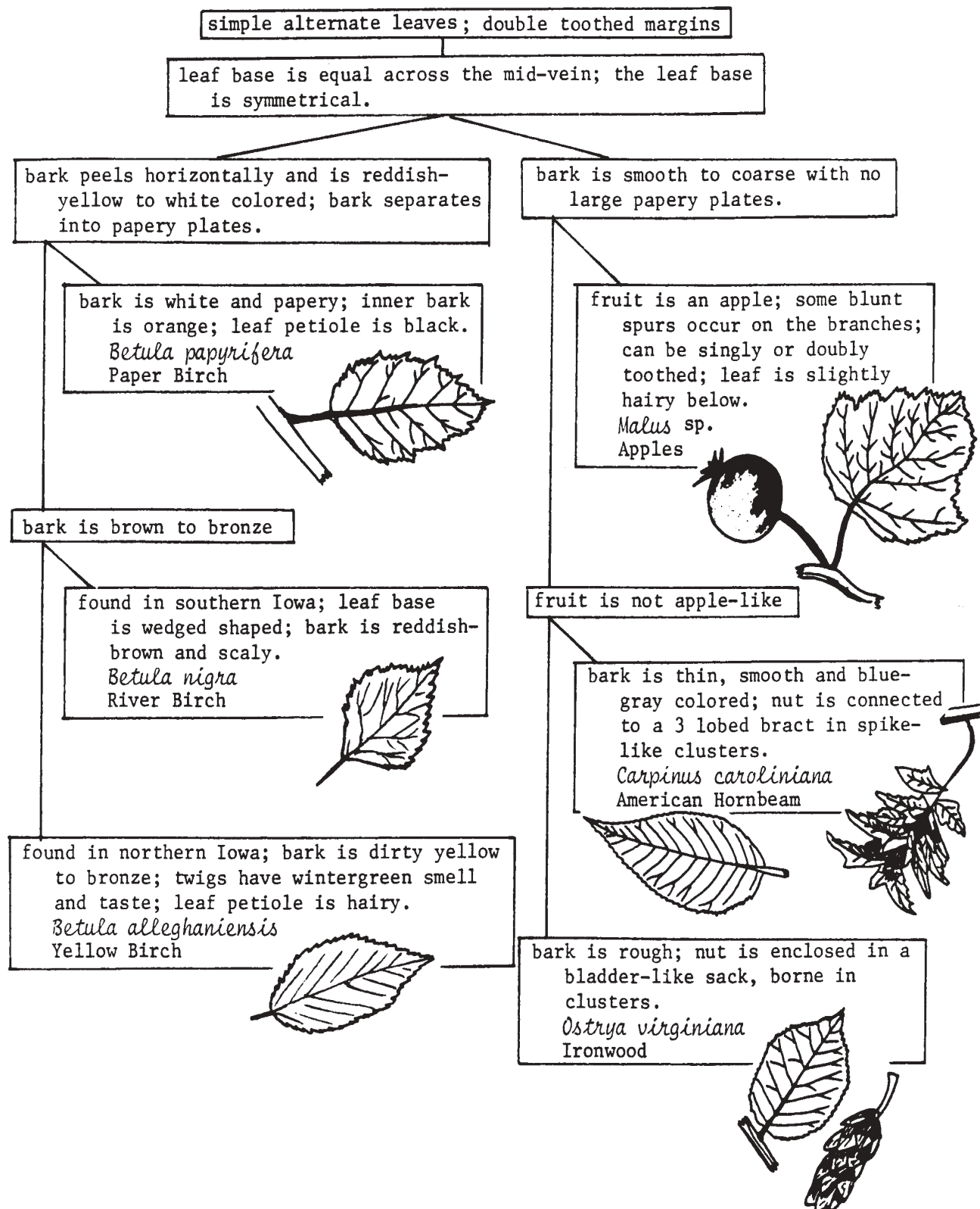
5-9 lobes; acorn has rough and hairy cap; basal leaf portion has lobes and tip portion of leaf is wavy edged.

*Quercus macrocarpa*  
Bur Oak







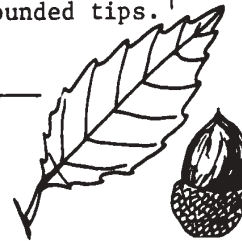


simple alternate leaves ; toothed margin

fruit is an acorn; buds are bunched at the twig tips  
leaf margins are coarsely toothed with rounded tips.  
*Quercus muehlenbergii*  
Chinkapin Oak

PAGE 12

PART A



PART B

simple alternate leaves; toothed margins

leaves are long and thin; length is more than 4 times the width.

buds have a single bud scale or covering;  
leaf has widely spaced marginal teeth;  
leaf is very narrow ( $\frac{1}{4}$ - $\frac{3}{8}$  inches wide);  
shrubby species.  
*Salix interior*  
Sandbar Willow



buds have a single bud scale or covering;  
leaf has finely toothed margins;  
leaf is narrow ( $\frac{3}{8}$ - $\frac{3}{4}$  inches wide).  
*Salix nigra*  
Black Willow



PART C

simple alternate leaves ; singly toothed margin

leaf is broad triangle shaped or oval with the length not more than  $2\frac{1}{2}$  times the width.

leaves are triangle shaped or as broad as wide (circular shape)

top portions of the tree has whitish or yellowish bark while the bottom portion has brown furrowed bark.

1 2 3

leaves are generally oval or oblong shaped.

fruit is  $\frac{1}{2}$  inch in diameter or larger.

4 5 6

GO TO PAGE 13



buds are resinous; leaves triangle shaped; leaf is coarsely toothed.  
*Populus deltoides*  
Eastern Cottonwood

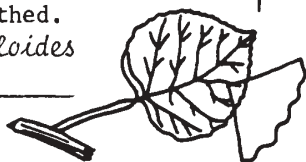


buds are not resinous

leaf is 2-5 inches long with a flattened petiole; buds stick out from the twig and are dusty-gray colored; leaf is coarsely toothed.  
*Populus grandidentata*  
Bigtooth Aspen



leaf is 1½-3 inches long; buds are incurved against the twig; leaf is finely toothed.  
*Populus tremuloides*  
Quaking Aspen



top of the tree is not whitish; leaves may have lobes; broad leaf with a compound fleshy fruit.  
*Morus sp.*  
Mulberry



fruit is less than ½ inch in diameter

leaves are hairy when young; 2-4 inches long; bark is smooth gray with dark lines in it; shrubby tree.  
*Amelanchier arborea*  
Juneberry



tree has spikes of fleshy fruit; bark is dark colored

leaf is finely toothed with teeth that incurve toward the leaf; red-brown hairs are along the basal area of the mid-vein; fruit is black when ripe; old bark is black and has platy scales; leaves are thick and waxy.  
*Prunus serotina*  
Black Cherry



leaf is finely toothed with outward curved teeth; fruit is red when ripe; bark is brownish and smooth; leaves are thin.  
*Prunus virginiana*  
Chokecherry



shrubby tree with apple-like fruit; spur-like stubs may exist on branches; leaf is slightly hairy below.  
*Malus sp.*  
Apples



shrubby tree with 1 inch diameter, green to purple fruit; fruit has a crease down one side; twigs are stubby, spur-like and sometimes spiny tipped; leaf has long pointed tip; leaf is 3-4 inches long.  
*Prunus americana*  
Plum

